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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/506,540

09/03/2004

Yoshitada Oshida

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EXAMINER

RUTLEDGE, DELLA J

ART UNIT

PAPER NUMBER

2851

MAIL DATE

DELIVERY MODE

09/03/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/506,540	<b>Applicant(s)</b> OSHIDA ET AL.	
	<b>Examiner</b> Della J. Rutledge	<b>Art Unit</b> 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on May 7, 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/08</u>   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***New grounds of Rejection***

1. New grounds of rejection on the pending claims appear below.

### ***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 7 – 10, 12, 15, 17, 22, and 23 rejected under 35 U.S.C. 102(b) as being anticipated by Kudo (JP 2001-085308).

In regard to claims 1, 10, 15: The reference has a method of illumination, comprising: emitting light from each of a plurality of light sources, the fiber bundle 19 has plural light sources; spatially decomposing the light emitted by means of the integrator 110 to form a multitude of pseudo-secondary light sources; and overlapping the light emitted by means of the condenser lens 116.

In regard to claims 3, 12, 17: The light sources are laser light sources.

In regard to claims 7-9, 22: the apparatus controls the energy of the light sources; the light ray emitted enters the integrator 110; the integrator provides the homogeneity and uniformity of the light rays.

In regard to claim 23: the detector 115 measures the light intensity

4. Claims 1, 2, 4, 8 – 11, 13, 15, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe et al. (JP 05-045605).

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In regard to claims 1, 10, 15: The reference has a method of illumination, comprising: emitting light from each of a plurality of light sources 1; spatially decomposing the light emitted by means of the integrator 4 to form a multitude of pseudo-secondary light sources; and overlapping the light emitted by means of the condenser lens 5.

In regard to claims 8, 9: the apparatus controls the energy of the light sources; the light ray emitted enters the integrator 4; the integrator provides the homogeneity and uniformity of the light rays.

In regard to claim 11, 16: the light emitting region is analogous to the shape of the region illuminated

In regard to claims 13, 18: the integrator appears to meet the ratios claimed

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 2, 4 - 6, 11, 13, 14, 16, 18 - 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodo (JP 2001-085308).

7. In regard to the following claims, see arguments below and the text of the reference at paragraphs 0012, 0015, 0029, 0053-0059 and 0069.

In regard Claim 2, 11, 16: to the arrangement of the sources analogous to a shape of the region to be illuminated, such an arrangement is known and reduces the need to use other components to shape the illumination.

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In regard to Claim 4, 13, 18: the integrator is used to control the uniformity of the illumination and one of ordinary skill in the art would know how to select the ratios of the integrator components to achieve that goal.

In regard to Claim 5, 14, 19: one of ordinary skill in the art would know that additional components may be needed to further improve the uniformity of the illumination.

In regard to claims 6, 20, 21: controlling the divergence of the angle controls the distribution of the illumination, and one of ordinary skill in the art would be motivated to control or adjust the divergence angle.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kurtz et al. reference relates to printing systems and teaches that a semiconductor laser array may be used as a light source.

### ***Response data***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Della J. Rutledge whose telephone number is (571) 272-2127. The examiner can normally be reached on Mon - Thurs, 6:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Della J. Rutledge/  
Primary Examiner  
Art Unit 2851

dr  
9/02/08